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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of

Telephone Number Portability

)

) CC Docket No. 95-116

) RM 8535

)

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COMMENTS OF THE AD HOC COALITION OF COMPETITIVE CARRIERS

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COMCAST CORPORATION
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SUMMARY

The Commission should require the prompt implementation of service provider local telephone number portability. Service provider local telephone number portability will significantly benefit consumers and will enable the growth of competitive options in the local telecommunications marketplace.

Service provider local number portability is crucial to the development of competition because it allows customers to change service providers without changing their telephone numbers. Market research consistently shows that number portability will be a significant factor in the ability of new entrants to compete effectively in the telephone marketplace. This research is confirmed by recent experience from 800 number portability. Service provider portability also will benefit customers who do not change carriers because they will obtain the lower prices and better service that will result from vigorous competition.

Because service provider portability is so important, the Commission should assure that it is implemented in an interoperable fashion across the country and that it is implemented promptly. Portability should be required in the largest markets within 24 months of a Commission order in this proceeding and within 24 months of a request for portability in smaller markets.

The Commission should focus on service provider local number portability. Service provider portability is easier to implement and requires resolution of fewer policy questions than service portability and location portability. The Commission should consider those forms of portability independently of service provider portability.

Like numbering resources generally, number portability resources should be administered by a neutral third party. In general, the Commission should avoid any portability solution that puts bottleneck control into the hands of a single party or into the hands of incumbent local exchange carriers.

The Commission also should reject interim portability measures as a long term solution. Interim measures are inherently inferior to true service provider portability and would serve only to perpetuate existing competitive imbalances that favor incumbent LECs. Interim measures should be made available free of charge until true portability is available.

Finally, each carrier should bear its own costs of implementing portability. Because all customers will benefit from service provider number portability, it is appropriate for all carriers to share the burdens of implementation.

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Telephone Number Portability) RM 8535
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COMMENTS OF THE AD HOC COALITION OF COMPETITIVE CARRIERS

Adelphia Communications Corporation; American Personal Communications, L.P.; California Cable Television Association; Comcast Corporation; Continental Cablevision, Inc.; Cox Enterprises, Inc.; Eastern Telelogic Corporation; Hyperion Telecommunications, Inc.; InterMedia Partners; Sprint Telecommunications Venture; TCI Communications, Inc.; and Teleport Communications Group, Inc. (the "Ad Hoc Coalition of Competitive Carriers" or the "Coalition") hereby submit their comments in the above-referenced proceeding.^{1/} As shown below, the Coalition strongly supports the Commission's conclusion that implementation of service provider local number portability will serve the public interest by promoting local telephone competition.^{2/} Consequently, service provider portability should be implemented with all due speed on a nationwide basis under the Commission's guidance and direction.

^{1/} In the Matter of Telephone Number Portability, *Notice of Proposed Rulemaking*, CC Dkt. No. 95-116, RM 8535 (rel. July 13, 1995) (the "Notice").

^{2/} Throughout this document, the term "number portability" refers to service provider local number portability unless otherwise indicated.

I. Introduction

The Ad Hoc Coalition of Competitive Carriers is composed of a diverse group of companies with significant interests in the development of local telephone competition.^{3/} It includes cable operators, competitive access providers, wireless providers and a trade association. The companies in the Coalition intend to serve telecommunications consumers in a variety of ways, including wired telephony, wireless services and resale.

The Coalition strongly supports the Commission's tentative conclusions that number portability will benefit consumers of telecommunications services and that number portability will contribute to the development of competition among all telecommunications providers in wired and wireless markets. Notice at ¶ 4. The significant benefits of number portability and the competitive detriments that result from its absence make it imperative for the Commission to act promptly and decisively to ensure that true service provider local number portability is available as soon as possible. For that reason, the Commission's sole focus during the current phase of this proceeding should be on permanent implementation of true service provider local number portability.

The Commission should give priority to the development of service provider local number portability because that type of portability is necessary for the development of local telephone competition. Service provider local number portability gives the customer the opportunity to change carriers without changing telephone numbers. As shown below, consumers will be reluctant to change carriers and competition will be inhibited without

^{3/} While each of the members of the Number Portability Coalition endorses the positions taken herein, some members also are filing separate comments to emphasize particular issues or to discuss their views of appropriate number portability architectures.

service provider local number portability. Location portability^{4/} and service portability^{5/} should not be given the same priority because they are less critical to the development of widespread competition and because they raise significant policy implications that should be addressed separately. These other forms of number portability should not be permitted to become an impediment to implementation of service provider local number portability.

The effects of service provider local number portability are likely to be analogous to the effects of 800 number portability.^{6/} The introduction of 800 number portability greatly spurred the development of competition in 800 service, reduced prices, increased the quality of service and stimulated innovation. Indeed, the introduction of 800 number portability resulted in tens of thousands of customers changing carriers at the time portability became available and untold numbers of customers changing carriers on a regular basis today. The ability to change carriers without inconvenience has greatly benefitted 800 service customers; local telephone consumers would benefit at least as much.

The Commission also should focus this proceeding on the timely development of permanent number portability. As explained in the Notice, interim approaches such as remote call forwarding have significant limitations that make them unsuitable as a permanent

^{4/} Location portability generally is defined as the ability to retain one's telephone number when moving from one location to another. "Follow me" roaming is an example of location portability.

^{5/} Service portability generally is defined as the ability to keep one's telephone number when changing from one service, such as POTS, to another, such as ISDN.

^{6/} Service provider local number portability generally is analogous to portability for any non-geographic numbering plan area, such as 800, 900 or 500. Given current network designs, implementation of local number portability does not depend on portability of any non-geographic code.

solution. *See* Notice at ¶¶ 58-59. If anything, the Notice actually underestimates the competitive disadvantages of interim number portability.

The goals the Commission must seek to implement can be reduced to a set of ten principles. A description of these principles is attached as an appendix to these comments. The body of these comments describes the basic policy concerns embodied in the number portability principles. Any plan that fulfills the goals underlying these principles also will advance the Commission's important competitive goals and will serve the public interest.

II. Number Portability Will Promote Local Competition and Benefit Consumers.

One of the first questions the Commission must confront is whether implementation of service provider local number portability is in the public interest. The answer to that question can be found in the consumer benefits that will accrue from the availability of portability. Number portability is a crucial element in the development of local telephone competition. With number portability, other local competition issues, such as interconnection and compensation, will be more easily resolved because carriers will have more incentives to cooperate if consumers can change carriers freely. Moreover, portability is important to all consumers because the benefits of competition flow not only to those who take advantage of the offerings of new entrants but to all consumers of telephone service. Consequently, portability will serve the public interest.

The Commission's experiences in implementing 800 portability and, to a degree, equal access, illustrate how important service provider local number portability is to the development of local competition. Before 800 portability, it was difficult for 800

customers to change carriers because it required a change in telephone numbers. This stifled competition for many customers that otherwise would have been the subject of intense competitive battles. Once 800 portability was implemented and customers could change carriers at will, competition greatly intensified and long distance companies began to compete vigorously not only on price but also on service quality and features.^{7/} Similar effects resulted from the implementation of equal access, which helped to shift millions of consumers to new carriers as it was implemented and which facilitates competition among long distance carriers today. The 800 and equal access experiences parallel what can be expected once service provider local number portability is implemented — vigorous competition on price, quality and features that benefits all consumers.

There also is significant evidence that implementation of service provider local number portability will expand the market for competitive local telephone service. The Notice describes research commissioned by MCI and MFS demonstrating the importance of portability to consumers. Notice at ¶ 22 & n.26 That research has been confirmed by a study of residential and business customers commissioned by Pacific Bell.^{8/}

^{7/} See, e.g., Neil Hediger, *800-Number Portability's First Birthday*, TELEMARKETING, May, 1994 at 84; *800 Number Portability to Create New Era of Competition and Wider Options*, TELEPHONE IP NEWS, Vol. 3, 1992.

^{8/} Pacific Bell presented its view of this research to the Commission. See Letter of Alan Ciampercero, Executive Director, Federal Regulatory Relations, Pacific Telesis, to William F. Caton, Acting Secretary, Federal Communications Commission, Aug. 30, 1995 (disclosing *ex parte* contact). The research also has been presented at a recent meeting of the Industry Numbering Committee. The information described in these comments is derived from the full written report on the research, not from Pacific Bell's selective and misleading presentation.

The Pacific Bell research finds that, for a new entrant to obtain any given level of penetration, consumers will require, on average, an extra discount of approximately 11 percent *in addition to any discount already offered* if number portability is not available. Similarly, the total penetration of competitors at any given price would be reduced by about 10 percent of the entire market (*e.g.*, from 20 percent to 10 percent) without number portability. These results are remarkably consistent among all market segments. This statistic alone demonstrates that without number portability new entrants will be at a significant disadvantage in the local telecommunications marketplace. Ironically, Pacific Bell has used these statistics to argue that number portability is unimportant.

The Pacific Bell research uncovered other significant marketing effects of number portability. For instance, during focus group research consumers were concerned about the effects of changing carriers more than once, which would require a consumer to change telephone numbers every time a new carrier was selected. This suggests strongly that the freedom of movement that now exists for long distance would not develop for local telephony in the absence of local number portability. In addition, the focus group research also showed that some consumers would be willing to change carriers only if their telephone numbers did not change. Without number portability, new entrants will be unable to compete for these consumers.

The significance of these findings cannot be overstated. Pacific's research shows that, without number portability, a new entrant is faced with either losing between 25 and 50 percent of its potential customers or lowering its prices significantly below what it otherwise would charge in order to establish or maintain its market share. Neither choice is

acceptable because either choice would stunt if not destroy competition in local telephone service. The advantage gained by incumbents is particularly significant because it does not arise from any inherent superiority in the marketplace, but merely because they have been in the market for 100 years and have 100 percent market share. There is no principled basis to permit incumbents to retain this unearned advantage.^{9/}

This market information and the experience of 800 number portability and equal access also demonstrate the importance of ensuring that service provider local number portability provides a seamless transition from one carrier to another. Porting a number from one carrier to another should not have a perceptible effect on call set-up time or post-dial delay. There should be no negative effects on carrier routing or on signalling. A permanent portability architecture must facilitate accurate billing, display of called and calling numbers and current customer features such as Caller ID, call forwarding and call return. The number portability architecture also should permit development of new services. Basic features such as 911 service, directory assistance and intercept should not be affected.

Maintenance of normal telephone service in a number portability environment is integral to true number portability. If portability results in any degradation of the quality of service from one carrier to another, consumers are sure to notice, with obvious effects on competition. Indeed, the implementation of equal access largely was driven by a realization

^{9/} Some incumbents have suggested that new entrants will have ample opportunity to gain market share by targeting new service in their markets. The fact remains that, for years to come, most potential customers already will be customers of incumbent carriers. In any event, it is unlikely that Bell Operating Companies would agree to such a limitation on their marketing of, for instance, long distance service when they enter that market.

that long distance competition thrives only if all competitors can offer their customers the same level of convenience and ease of use.^{10/}

While number portability is important to companies expecting to enter the local telephone marketplace, its most important benefits will accrue to consumers. Consumers of new carriers will benefit directly because they may select the local carrier best suited to their needs without having to give up their telephone numbers or telephone features they expect. Consumers who stay with their current carriers will benefit as well. They will not be inconvenienced by having to deal with changes in the numbers of consumers who change carriers. More importantly, these consumers also will benefit from reduced prices, new features and improved service, just as all customers of 800 service, even those who stayed with their original carriers, receive the same benefits since 800 portability was implemented. These benefits are unavailable without service provider local number portability.

III. The Commission Must Ensure Uniform Implementation of Standards for Service Provider Local Number Portability.

To date, most activity to promote local number portability has been at the state level. The States have played an important role in analyzing and evaluating potential number portability architectures. The States will continue to have a significant role as portability moves forward, especially in ensuring service quality, educating consumers and continuing trials of promising approaches to number portability. Nevertheless, the Commission should

^{10/} In a fully competitive environment, number portability will be equally important to today's incumbents as they compete for their former customers and new customers of their competitors.

take the lead in ensuring that service provider local number portability is implemented promptly and uniformly across the nation.

In particular, the Commission should adopt basic standards for portability to be implemented by the telecommunications industry. The standards should include specific requirements for network performance once portability is implemented and for compatibility and interoperability between networks on which portability is deployed.^{11/} Service standards should include call processing time, quality of ported calls and availability of network functionality. Interoperability is particularly important because it prevents redundant database dips and other network inefficiencies that could delay call processing or degrade the quality of calls. The Commission's standards also should require consistency in call processing. The Commission should, where possible, encourage the industry to use existing network capabilities to implement service provider local number portability, so as to speed the implementation of a permanent solution.

Adoption of uniform number portability standards is important for several reasons. First, varying standards would increase costs, increase deployment time and could result in inconsistent treatment of calls to ported numbers. In particular, economies of scale

^{11/} While the Commission should require, for instance, interoperability and compatibility, it need not specify the particular mechanisms by which these requirements will be met. Thus, adoption of these requirements should not involve detailed technical Commission deliberations. As described below, industry groups such as INC and Committee T-1 are best suited to that role. *See* Appendix.

and scope would be lost if different number portability standards are adopted in different states.^{12/}

Uniform standards also are significant to new entrants because many of them are likely to compete in many markets across the country. If these companies were required to divide their resources to implement multiple standards, they would be forced to bear unnecessary costs to implement inconsistent systems in different markets. Any potential economies that could arise from providing service across the country would be lost, with obvious detrimental effects on costs and prices to consumers. While these costs would be burdensome for many new entrants, they would not meaningfully affect incumbent Bell Operating Companies because they operate in contiguous regions. Moreover, the BOCs will influence the adoption of architectures in each of their states and will be unlikely to face more than one or two different sets of standards within their regions.

Uniform standards also will encourage equipment vendors to design and build the equipment necessary to implement portability as quickly as possible. Uniform standards will encourage competition and, consequently, lower prices in the equipment market because vendors will have incentives to gain market share rapidly in the portability equipment market.

The Commission's recent experience with AM stereo also reinforces the importance of basic standards. As the Commission found in its most recent consideration of that issue, the decision not to mandate a specific result in the initial AM stereo order resulted

^{12/} Current versions of the House and Senate telecommunications bills require adoption of a uniform standard for local number portability. See H.R. 1555, § 101; S. 652, § 307.

in market failure because none of the potential "standards" gained the critical mass of users necessary for success.^{13/}

The Commission has several models it should emulate in establishing basic standards for number portability. It should first take a cue from the successful implementation of 800 portability and of telecommunications relay service by requiring portability to be implemented on a firm and definite schedule. These experiences show that, once the Commission dictates action on number portability, the adoption of standards and implementation of portability can occur on a reasonable schedule. Without such action, it is almost certain that implementation of number portability will be delayed indefinitely.

The Commission also should assure that administration of resources necessary for number portability is retained in neutral hands, as it did in the 800 portability proceeding.^{14/} Neutral administration is important to avoid conflicts of interest and, equally important, the creation of a new bottleneck that restrains local telephone competition. It is particularly important to avoid giving incumbent carriers a role in administering portability because the evidence of past behavior strongly suggests that the Bell Operating Companies will try to thwart the emergence of competition.^{15/}

^{13/} See Amendment of the Commission's Rules to Establish a Single AM Radio Stereophonic Transmission Standard, *Report and Order*, 8 FCC Rcd 8216 (1993).

^{14/} Similarly, the Commission recognized the importance of neutral administration in its recent numbering decision.

^{15/} See, e.g., Interconnection with Local Telephone Company Facilities, *Third Report and Order*, 9 FCC Rcd 2718 (1994); Interconnection with Local Telephone Company Facilities, *Memorandum Opinion and Order*, 9 FCC Rcd 5154 (1994).

In light of the BOC history of obstruction, the Commission also should create incentives for LECs not to drag their feet in implementing number portability. The LECs will have little reason to speed implementation if, for instance, they are permitted to charge monopoly rates for remote call forwarding. Consequently, it would be appropriate to require LECs to make remote call forwarding or other interim measures available free of charge. Similarly, interconnection-related charges should be significantly discounted until true number portability is available. Such discount policies are consistent with the access pricing policies the Commission adopted in the transition to equal access.^{16/} Discounts also would help to offset the diversion of access revenue from new entrants to LECs that would result from interim arrangements. *See infra* Part VII.

Finally, the Commission should not try to divest the States of their significant role in the implementation of portability. The States are likely to continue making contributions to the development of portability technology and systems for administering the transition from one carrier to another in a portable environment. The Commission should encourage and guide the States by setting standards and deadlines and let the States continue their efforts to implement those requirements. For instance, if some states wish to require implementation of "mid-term" portability solutions pending the implementation of permanent service provider local number portability, they should be permitted to do so. In addition, States should be encouraged to continue to pursue accelerated schedules for implementation of service provider local number portability ahead of the national deadline.

^{16/} See 47 C.F.R. § 69.113 (55 percent discount for non-equal access prior to implementation of equal access).

IV. The Commission's Initial Focus Should Be on Service Provider Local Number Portability.

The Commission has described three types of number portability in this proceeding: service provider local number portability, service portability and location portability.^{17/} While there may be long-term benefits to full implementation of location portability and service portability, the Commission should limit its focus at this stage of this proceeding to service provider portability. Service provider portability is the only form of portability essential to promote local competition, and other forms of portability raise significant policy issues that are best resolved separately.

In this context, service provider portability includes all forms of portability between competing service providers. It should be technology neutral. Thus, portability between an incumbent LEC and a competitive LEC, between CMRS carriers, and between a CMRS carrier and a LEC should be supported. Portability between CMRS carriers and wired carriers is especially significant. As the Commission has recognized in other contexts, CMRS carriers, and particularly PCS providers, are likely to compete with wired carriers in the future. Portability is necessary to facilitate that competition. *See supra* Part II.

Location portability and service portability, on the other hand, will have little direct effect on the development of competition. Both may provide benefits to specific consumers, but those benefits are unrelated to the carrier chosen by the consumer. Many of those benefits are available with existing technologies, such as follow-me roaming or even

^{17/} Some limited forms of location portability already exist. For instance, a consumer typically can retain his telephone number if he changes his address but remains within the boundaries of the same wire center. Similarly, follow-me roaming is a form of location portability implemented for cellular customers.

fax/voice switches at a customer's premises. More significantly, these forms of portability are likely to be developed independently by the telecommunications industry if there is consumer demand for them.

Service provider portability also is easier to implement than either service portability or location portability. Unlike location portability, service provider portability does not require extensive modifications to existing billing systems. Service provider portability also can be implemented on a phased basis without a national cutover and without affecting all central offices simultaneously. The ability to provide for this transition will lessen the costs of portability, spread them over time and permit refinement of the portability architecture as it is deployed.

Location and service portability also raise significant policy issues. Implementation of full location portability would fundamentally change the nature of the telephone numbering system in the United States, with concomitant effects on other nations in the North American Numbering Plan region. Some forms of service portability, *e.g.*, between geographic and non-geographic numbers or between 800 and 900 numbers, would raise equally complex policy issues. Thus, further study of both location and service portability is necessary before the Commission takes any steps to implement these potential technologies.

No such delay is necessary prior to the implementation of service provider local number portability. The Commission can resolve the relatively few questions raised by service provider portability expeditiously in this proceeding. The only result of tying service

provider portability to the resolution of policy issues related to location and service portability would be further delay in the advent of full competition in local telephone service.

V. Service Provider Local Number Portability Should Be Implemented on a Prompt, Phased Schedule.

The benefits of service provider local number portability will not be available to consumers and competitors until it is implemented. Thus, prompt implementation of portability is crucial. At the same time, the Commission should balance the benefits of number portability against demonstrated need. As a result, the Commission should adopt a phased, but prompt schedule for the implementation of service provider local number portability.

The proper balance of speed and need can be reached by differentiating between larger markets (where demand for portability is certain to emerge promptly) and smaller markets (where demand may take longer to develop). In particular, the Commission should require implementation of number portability within 24 months of the issuance of an order in this proceeding throughout the top 100 MSAs, where most of the population and most of the initial demand for portability are concentrated. In the rest of the country, carriers should be permitted to make written requests for portability with implementation required within 24 months of a request.

Swift implementation of number portability in the top 100 MSAs will have two effects. First, it will facilitate the growth of competition as new entrants look towards a true opportunity to compete with incumbents. In addition, a specific implementation requirement

will assure that equipment necessary to implement portability is developed and made available promptly because vendors will be assured of demand.

Linking implementation of portability in smaller markets to specific requests will ensure a balance between the need for a level competitive playing field and the costs of implementing portability in smaller markets. As was the case under the request-based requirements for implementing equal access, requiring a request before portability must be implemented will assure that carriers do not bear the costs of portability without a related consumer benefit. At the same time, using a request to trigger implementation will give new entrants the opportunity to obtain portability when they need it.

The Commission also could implement safeguards to prevent undue burdens in the request process. First, the Commission should require carriers in smaller markets to respond only to requests from *bona fide* competitors. The standard for such requests should be whether the entity that asks for portability is eligible for central office codes under the standards already established in the Central Office Code Assignment Guidelines.^{18/}

The Commission also should permit non-Tier 1 LECs and small CMRS providers to petition for extensions of time to implement number portability. Extensions may be appropriate in some circumstances where technical or other difficulties prevent a carrier from implementing the chosen portability architecture. However, these carriers should not be permitted to evade their responsibilities. In particular, any carrier that is competing in the nearby territory of another incumbent carrier should not be permitted to postpone

^{18/} See Central Office Code Assignment Guidelines, INC 95-0407-008, Industry Carriers Compatibility Forum, April 7, 1995.

implementation of number portability because it already will benefit from portability in the nearby area.

This phased approach will provide an orderly transition to a number portability regime. It first assures that portability is available where needed most in the major markets and, even then, does not require immediate implementation.^{19/} The transition to portability in other areas will be governed not by a rigid timetable but by market forces and the demand for portability. Relying on market forces is particularly appropriate because it will result in a more gradual spread of number portability to smaller markets as portability technology develops and becomes less expensive, thus minimizing expenses in the smaller areas.

VI. Resources Associated with Number Portability Should Be Administered by a Neutral Third Party Under Specifications Adopted by the Commission.

There are significant reasons to place administration of resources associated with number portability into the hands of a neutral third party. *See supra* Part III. The Commission also should adopt specifications for administration and operation of the database that will maintain the neutrality of the administrator.

As a practical matter, it is likely that any permanent number portability solution will require administration of one or more databases containing number portability information. Much like the 800 SMS database, access to this database will be essential for any carrier that wants to provide service in a portable environment. Thus, it is crucial that

^{19/} As a practical matter, most carriers will have been on notice of the likely need for portability for three years or more by the time it is implemented.

the database be administered on a neutral basis. This will require oversight from the Commission and from an industry oversight body

The costs of administering the database should be borne by the companies that use the database in proportion to their use of the data it contains. Companies using the database also should be responsible for maintaining the integrity of the data and for providing information on their customers in areas where portability is available.

The Commission should limit the information in the database only to that necessary to implement the portability architecture. It is likely that specific routing information will not be required, but that only a specification of the terminating carrier or the terminating location will be necessary. While the Commission should make provisions for scalability in the database, carriers should not be required to provide information beyond that necessary to implement portability. Other information could be competitively sensitive. Providing that information also would create costs without any corresponding benefit.

VII. Interim Measures Are Not Acceptable as Permanent Number Portability Solutions.

A permanent number portability solution will not be available immediately upon completion of this proceeding. As a result, new entrants must depend on interim measures, including remote call forwarding. The Commission should not mistake these inferior measures for true service provider local number portability. Nevertheless, the Commission should recognize that interim measures may be necessary prior to permanent implementation of service provider local number portability.

As the Notice explains, remote call forwarding and direct inward dialing ("DID") have been proposed as alternatives to true local number portability. Notice at ¶¶ 55-60. As the Notice also recognizes, these services degrade the quality of service available to the new entrant's customers. *Id.* at ¶ 58. While remote call forwarding is the less inferior of the two, it still is greatly limited. For instance, caller ID and automatic call return are both limited by call forwarding.

Even ignoring these specific limitations, remote call forwarding does not meet many of the fundamental principles described in these comments and the Appendix. First, it wastes numbering resources because it requires two numbers for every customer line. As a result, remote call forwarding could accelerate number exhaustion.

More important, remote call forwarding maintains the existing monopoly bottleneck even after a new entrant obtains a new customer. Under remote call forwarding (and DID), all calls to a customer go not to the new carrier but to the original carrier. This means that the old carrier controls call routing. The old carrier also retains terminating access revenues because interexchange carriers have no way to route the call to the new carrier. In addition, because remote call forwarding degrades the quality of service and limits the features that a new entrant's customer can use, it also does not provide a seamless transition between old and new carriers.^{20/}

While interim portability measures cannot be substituted for a permanent solution, they will continue to be very important until a permanent solution is implemented.

^{20/} DID shares these faults. As described in the Notice, DID has additional limitations, including higher incidences of call blocking and limitations on the number of users who may be on the system. Notice at ¶ 60.

Despite their shortcomings, the interim measures are the only technologies available today to mitigate the difficulties caused by the lack of true service provider local number portability. Thus, LECs should be required to make interim measures available until a permanent solution is implemented. The Commission also should require LECs to implement all technically feasible modifications to interim portability measures that will eliminate any of the acknowledged drawbacks of interim portability measures.^{21/}

Some incumbent carriers not only propose to use remote call forwarding as a number portability "solution," but also propose to charge *retail* prices for the service. This proposal is offensive to the concept of promoting competitive markets. There is no justification for permitting incumbents, who already will benefit by retaining terminating access revenues, to reap further monopoly profits by charging premium retail rates for call forwarding service. Moreover, because the costs of providing remote call forwarding or DID are very small, the profits inherent in the retail rates are enormous. In effect, permitting carriers to charge retail prices for interim measures would reward them for their failure to provide permanent portability. Rather than permitting incumbents to reap these windfall profits, the Commission, as described above, should require interim portability measures to be provided without charge. *See supra* Part III.

^{21/} As described above, the States also should be permitted to require implementation of "mid-term" portability technologies until such time as a permanent portability architecture is implemented. *See supra* Part III.

VIII. Each Carrier Should Recover Its Own Costs of Complying with Number Portability Requirements.

Implementation of service provider local number portability, as shown throughout these comments, is fundamental to the development of local competition. Because the benefits of portability will accrue to all consumers and ultimately to all competitors (including today's incumbent LECs), the costs should be borne by all providers of telecommunications services.

Like any other basic network upgrade, number portability will impose costs on all providers of telecommunications services. New entrants and existing carriers alike must design or modify their facilities to comply with standards adopted by the Commission in this proceeding. These requirements are no different from other basic changes in the network, such as the implementation of Signalling System 7 or adoption of Advanced Intelligent Network technology. Ultimately, of course, the costs of these upgrades are borne by the customers of the carriers who implement them in the rates for the services supported by the upgrades. Thus, consumers who benefit from upgrades also pay for them.

The same principle should apply to service provider number portability. As described above, all consumers will benefit directly and indirectly from number portability. *See supra* Part II. Consequently, all carriers and, indirectly, their customers, should bear the costs of portability.^{22/}

Proposals to shift the costs of portability to new entrants would disrupt the balance of cost and benefit. If incumbents are permitted to shift costs to new entrants, the

^{22/} Common costs, such as the costs of implementation of any common database, should be shared among all carriers.